TUTORIAL

Version 5

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Introduction

There are basically three steps to using LUBE-IT. They are: 1) Documenting What to Lubricate, 2) Planning How to Lubricate, and 3) Executing Your Plan. This tutorial will take you through these three steps. At the end of the tutorial, you will have learned all the basic tools needed to streamline the job of lubricating your equipment.

This introduction will first explain the three steps in general terms. Subsequent sections will actually take you into LUBE-IT and walk you through each step.

1. Document what to lubricate

Before any lube routes or schedules can be created, you must first determine what equipment at your site needs lubrication. This includes determining what components reside on each piece of equipment, what lubricants are needed, how many lubrication points each component contains, etc.

There are two methods for getting this basic data into LUBE-IT:

1) **Entering manually**

   System, equipment, and task data are entered from the Equipment Manager, which we will look at in the next section of this tutorial. Other data, such as products, locations, and staff members, can be entered using the windows found under the Define menu.

2) **Importing data from a text file**

   This method is useful if you already have lubrication specification data stored in another format. If the data can be put into a text file, it can be imported into LUBE-IT, which means not having to re-enter the data.

See the LUBE-IT User Manual for more information on entering or importing data.

For the purposes of this tutorial, we will use the demo data supplied with LUBE-IT. The demo data is a complete set of all the data you need to practice creating lube schedules. You can do anything you like with this demo data, and your real data will not be affected.

2. Plan how to go about it

Once some basic data has been entered, you need to decide how to organize the lubrication of the equipment into routes. A route is a sequence of lubrication tasks that are grouped together and are typically performed by a single person. Routes can be determined by physical proximity of equipment, by the lubricants required, etc. You can create as many routes as necessary.

This tutorial will take you through the steps necessary to create a route, assign tasks to it using the Route Wizard, and then use the Route Explorer to reorder the tasks in the route. Lastly, you will learn how to print out the route.

3. Execute your plan

Once your routes have been created, you are ready to use LUBE-IT's automatic work release to create weekly work schedules. Releasing a weekly schedule is a relatively simple process, as LUBE-IT does most of the work for you. Once the weekly schedule is automatically created, it can then be printed out or checked-out to a mobile computer, and lubrication can begin.

The first time you build a schedule, however, LUBE-IT needs information about the past lubrication of your equipment, and so it requires a little more input from you. Once this information has been supplied, schedule building is quick and easy.

This tutorial will take you through the building of your first schedule, how to look at the scheduled routes once they have been released, and how to print out scheduled routes. You will then be shown how to update a scheduled route with completed tasks. You will go through this process twice, as the second time through (and all subsequent times) are a little different than the building of the first schedule.

Start LUBE-IT

DO IT! ***Start LUBE-IT***

1. Click the **LUBE-IT 5** icon from you computer's desktop

   –OR–

2. Select **LUBE-IT 5** from the Start menu.

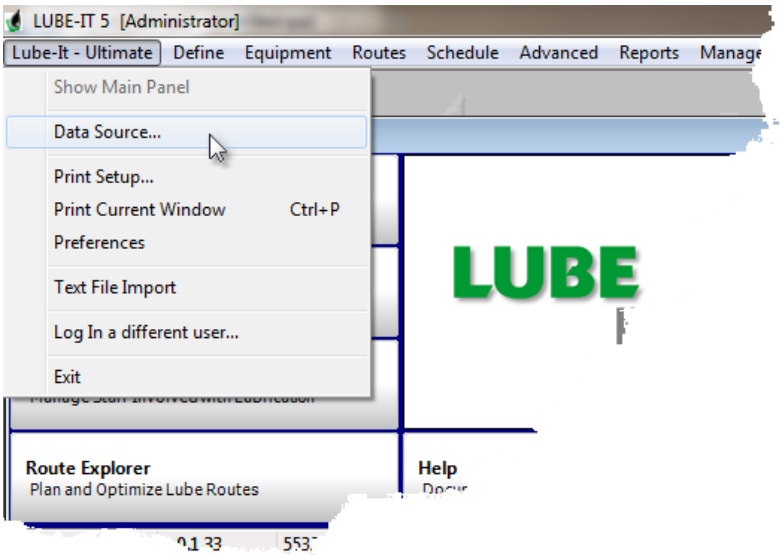
If you are running a multi-user edition of LUBE-IT, you will be presented with a window prompting you for a user name and password. If you don't know your user name and password, ask your system administrator, or use **DEMO** for both the username and password.

LUBE-IT will then start up, presenting you with the Main Panel.

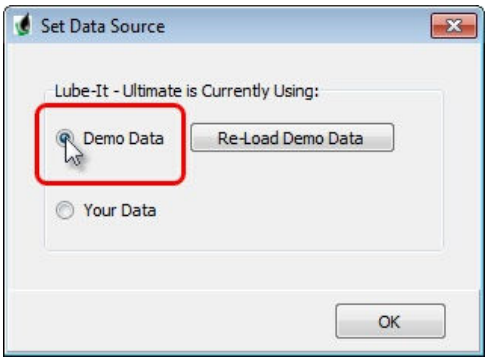
Document what to lubricate

First, we will set LUBE-IT's data source to the demo data, meaning that nothing you do in this tutorial will affect your real data, if there is any yet.

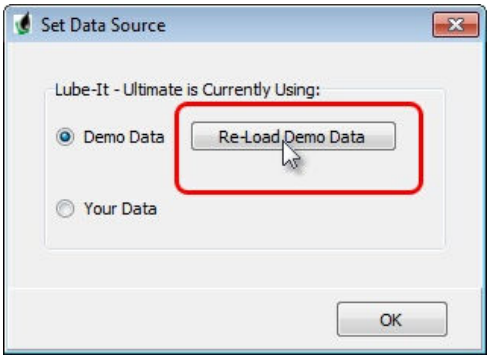
DO IT! ***Set the Data Source***



1. Select **LUBE-IT** from the menu.
2. Select **Data Source…** from the submenu.



3. Click on the **Demo Data** radio button in the dialog box.



4. Click on the button labeled **Re-Load Demo Data**. This step insures that you are working with an unaltered set of demo data.
5. Click on **OK** to confirm re-loading the demo data. The re-load will take a minute or so.
6. Click on the **OK** button.

The Equipment Manager

The Equipment Manager allows you to browse and edit your equipment data, as well as the details about all the lubrication tasks for each piece of equipment. In this next section, you will become familiar with the Equipment Manager, and in so doing, will also learn some of the features common to all data entry windows in LUBE-IT.

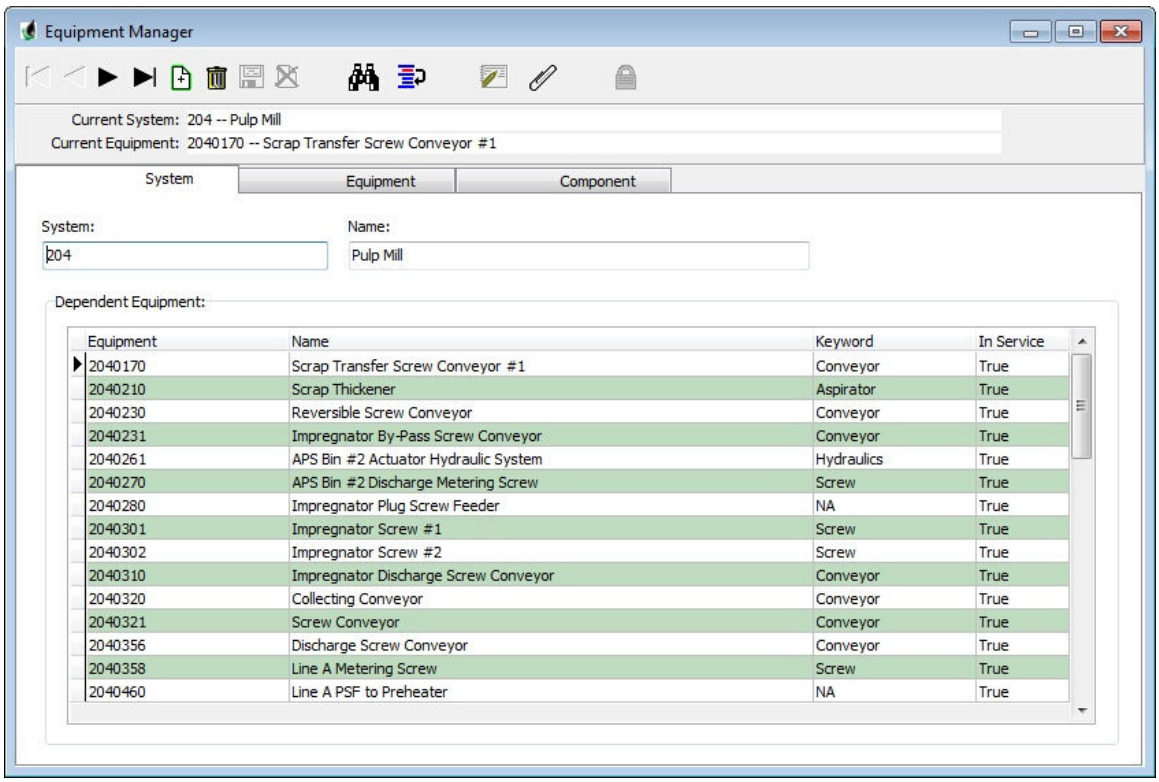
DO IT! ***Open the Equipment Manager***

- Click on the **Equipment Manager** button on the Main Panel

  - or -

1. Select **Equipment** from the menu

2. Select **Equipment Manager** from the submenu


Equipment Manager
Current System: 204 -- Pulp Mill
Current Equipment: 2040170 -- Scrap Transfer Screw Conveyor #1
System
Equipment
Component
System:
204
Name:
Pulp Mill
Dependent Equipment:
Equipment | Name | Keyword | In Service
2040170 | Scrap Transfer Screw Conveyor #1 | Conveyor | True
2040210 | Scrap Thickener | Aspirator | True
2040230 | Reversible Screw Conveyor | Conveyor | True
2040231 | Impregnator By-Pass Screw Conveyor | Conveyor | True
2040261 | APS Bin #2 Actuator Hydraulic System | Hydraulics | True
2040270 | APS Bin #2 Discharge Metering Screw | Screw | True
2040280 | Impregnator Plug Screw Feeder | NA | True
2040301 | Impregnator Screw #1 | Screw | True
2040302 | Impregnator Screw #2 | Screw | True
2040310 | Impregnator Discharge Screw Conveyor | Conveyor | True
2040320 | Collecting Conveyor | Conveyor | True
2040321 | Screw Conveyor | Conveyor | True
2040356 | Discharge Screw Conveyor | Conveyor | True
2040358 | Line A Metering Screw | Screw | True
2040460 | Line A PSF to Preheater | NA | True

The Equipment Manager

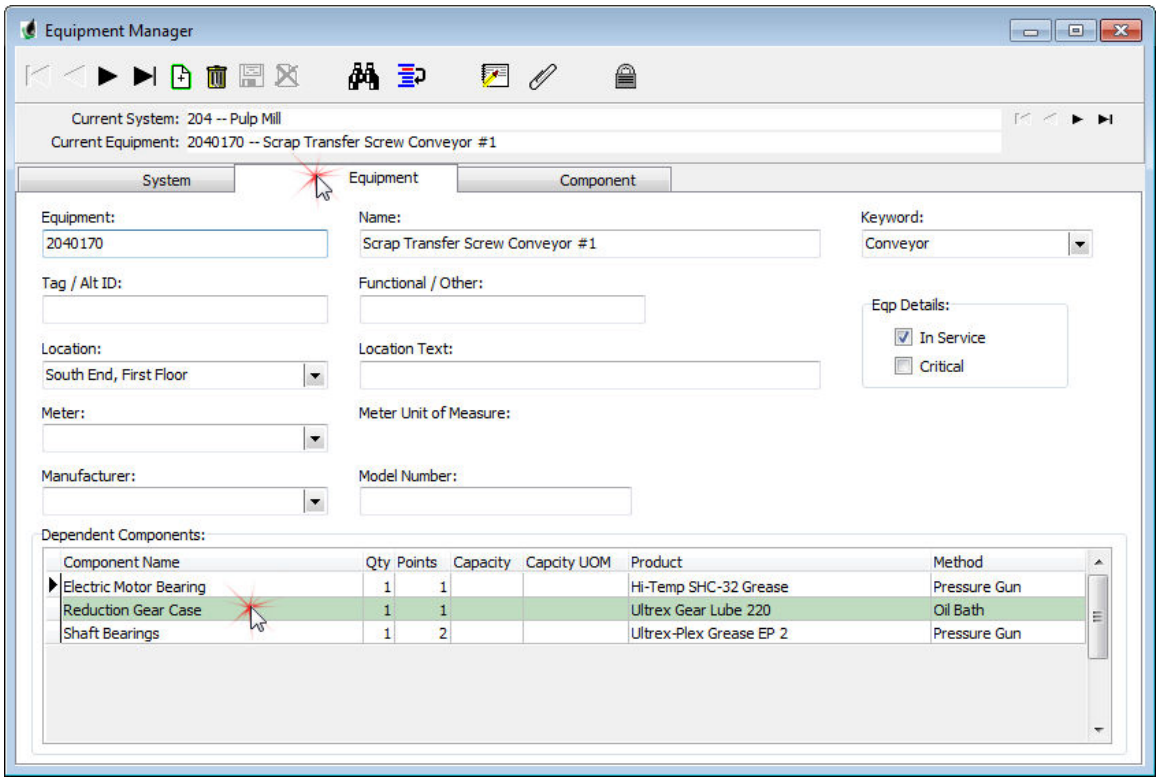
The Equipment Manager is made up of three tabs, labeled **System**, **Equipment**, and **Component**. The picture above displays the **System** tab.

> **What is a system?**
>
> A system is simply a group of equipment with something in common. You can group your equipment into systems in any way you find useful. For example, equipment can be separated into systems based on their physical location, on their function at your site, etc. In the demo data, systems are denoted by their function. Some systems in the demo data include "Pulp Mill", "Boiler", and "Water Treatment".

The currently displayed system is number 204, Pulp Mill. The system number and name are seen at the top of the window. The grid underneath is a listing of all equipment that is assigned to this system. Now let's look at the equipment tab.

DO IT! *Go to the Equipment Tab*

- Click on the tab labeled **Equipment** near the top of the Equipment Manager



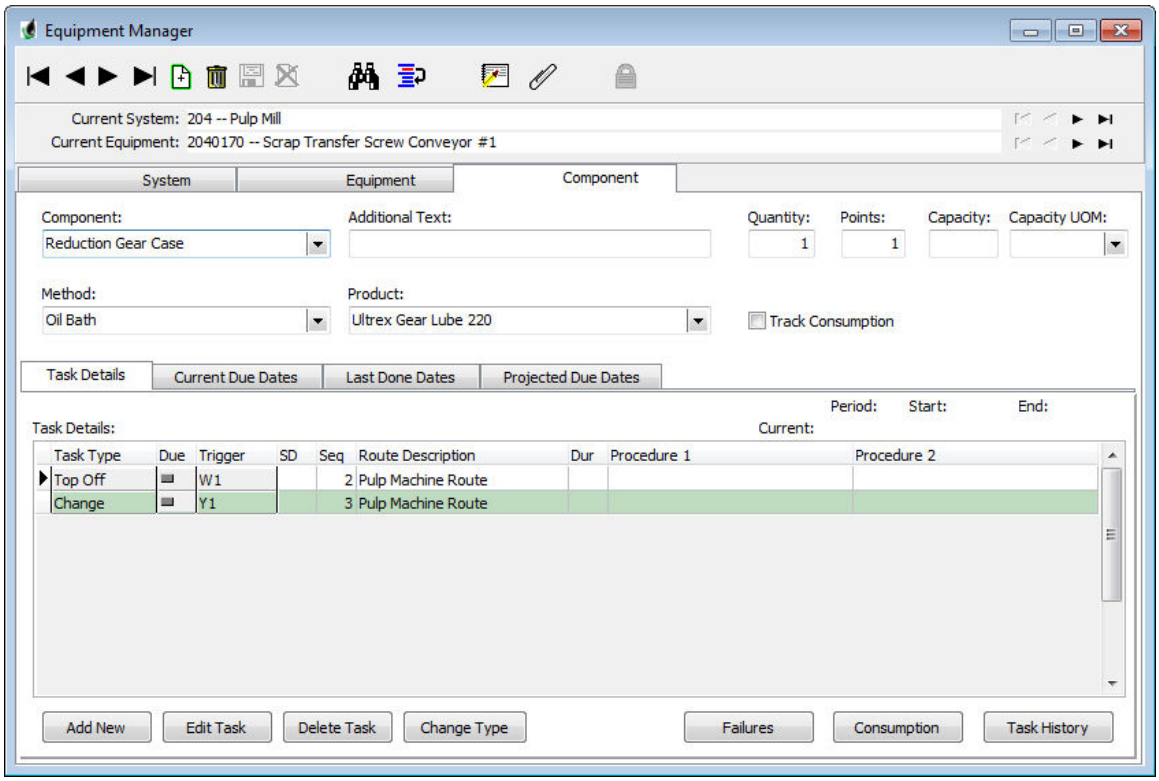
The Equipment tab of the Equipment Manager

The Equipment Manager is now on the Equipment tab and displays information about a single piece of equipment, "Scrap Transfer Screw Conveyor #1", which belongs to the system "Pulp Mill". The information displayed includes its location, whether it is in service or not, etc. At the bottom of the tab is a listing of components (also known as lube points) belonging to that piece of equipment.

Now let's look at one of these components. You could simply click on the **Components** tab as you did to get to the Equipment tab, but let's use another method.

DO IT! *Go to the Component Tab*

- In the grid at the bottom of the screen, double-click on the second line, which contains the component "Reduction Gear Case".



The Component tab of the Equipment Manager

The Component tab is now displayed, showing information about the "Reduction Gear Case" component in the previously displayed piece of equipment.

> It is important to notice that every time you select a new tab in the Equipment Manager, you are displaying something that is related to the previous tab's data. For example, we first looked at the system "Pulp Mill". When we went to the Equipment tab, we were looking at a piece of equipment in the Pulp Mill system, and when we moved to the component tab, we saw a component belonging to that piece of equipment.

The component tab contains information about the component such as its lubricant and lubrication method. This component, for example, uses the lubricant "Ultrex Gear Lube 220" and method "Oil Bath".

At the bottom of the page, you will see the **Task Detail Grid**. This grid contains the lubrication tasks associated with the component. The task type is indicated by the far left hand column of the grid, under the column heading "Task Type". Notice the currently displayed component has both a "Top Off" task and a "Change" task associated with it.

LUBE-IT provides a number of common task types. In addition, users may define their own task types by choosing Define | Task Types from the main menu. See the LUBE-IT User Manual for more information.

The Toolbar

The equipment "Scrap Transfer Screw Conveyor #1" contains a total of three components (or lube points). What if we want to look at a component besides "Reduction Gear Case"? How can we browse through them? The toolbar at the very top of the Equipment Manager contains tools to enable us to do this. Let's look at this toolbar now.

The eight buttons on the left side of the toolbar are called the "Navigator" and allow you to move through and manipulate records in the window. We will only concern ourselves with the Navigator in this tutorial. The other five buttons are the Find Button, the Reposition Button, the Notes Button, the Attachments Button, and the Lockout Data Button. You can learn about these in the User Manual.

Now we will use the buttons in the Navigator to browse around the components belonging to the equipment record "Scrap Transfer Screw Conveyor #1".

DO IT! *Navigate Through Components*

1. As you may remember, the "Reduction Gear Case" is the second of the three components in the equipment. Click on the third button from the left in the Navigator, which is a plain, right-pointing arrow. The component window now moves to the next record, displaying the third component in the equipment "Scrap Transfer Screw Conveyor #1". You can see that the component is "Shaft Bearings".
2. To jump quickly back to the second component, click on the second button from the left, which is a plain left-pointing arrow. The "Reduction Gear Case" component is displayed again. Experiment with these two buttons to get a feel for how they are used to move through records.
3. The leftmost and fourth buttons in the Navigator, arrows with vertical bars, take you quickly to the *first* and *last* records. Try these out now.

The rest of the buttons in the Navigator allow you to create and delete new records, save them, and cancel pending changes to them.

Now we are going to add a third task to this component, of type "Sample".

DO IT! *Add a Task to a Component*

1. Use the Navigator buttons to again display the component "Reduction Gear Case", if it is not already displayed.
2. Click on the **Add New** button located at the bottom of the Equipment Manager under the Task Details Grid.

3. In the dialog that appears, select the task type **Sample** from the drop-down list. Notice that "Top Off" and "Change" aren't in the list. This is because the component already has a "Top Off" task and a "Change" task. (There can only be one task of each type per component.)
4. Click **OK**.
5. The **Component Tasks** dialog appears. In this dialog, you enter information about the task.
6. In the **Trigger** field, click on the down-pointing arrow at the right end of the field. A drop-down list of available triggers (also known as Frequency) appears.
7. Click on the trigger "1 Month". It is placed into the field. Alternately, you can just start typing "1 Month". The drop-down list will automatically open and highlight the "1 Month" selection.
8. Use the same method in the field **Route Description** to select "Oil Sampling".
9. In the **Procedure 1** field, select "UOA Sample Proc #1".
10. Now click inside the boundaries of the **Date Last Done** field.
11. This field is used to tell LUBE-IT when a newly entered task was last done (if this is known). Dates are easily selected by specifying the day, month, and year on the calendar. For the purpose of this tutorial, enter a date that is exactly one (1) month prior to today's date. As an example, if today's date is 9/25/2011, you would enter 08/25/2011.
12. Click on the **Update** button to add the new task to the component. It now appears in the Task Details Grid.

Why enter a date of 1 month ago?

The "Sample" task that you added was specified to come due every month (1 Month). In step 11 above, you were instructed to enter a Date Last Done of 1 month ago. Later in the tutorial, you will release a weekly lube schedule, which will contain all currently due tasks. For instructional purposes, we wanted the new task you entered to show up as due in the first schedule. If the task needs to be performed every 1 month and was last performed 1 month ago, it is certain to be due in the first schedule you make.

Normally, of course, you will be entering the actual date the task was last performed. If you don't know that date, or choose not to use it, LUBE-IT will assign a next due date automatically.

Plan how to go about it

"I can see that there might be a very large number of tasks. How do I keep all these tasks organized?"

The answer is ***Routes***. A route is a collection of tasks to be performed together in a specific sequence. You will be planning and building your own routes. Any task can be added to any route, meaning routes are not limited to a single frequency or lubricant the way they are in a CMMS. You can base routes on the physical proximity of the tasks, the lubricants needed to perform them, the person trained to do them, the function within the organization, or any way you see fit.

Several tools to maintain routes

The Route Explorer is used to edit existing routes, re-order tasks within routes, or add new routes. This tutorial will take you through the Route Explorer shortly.

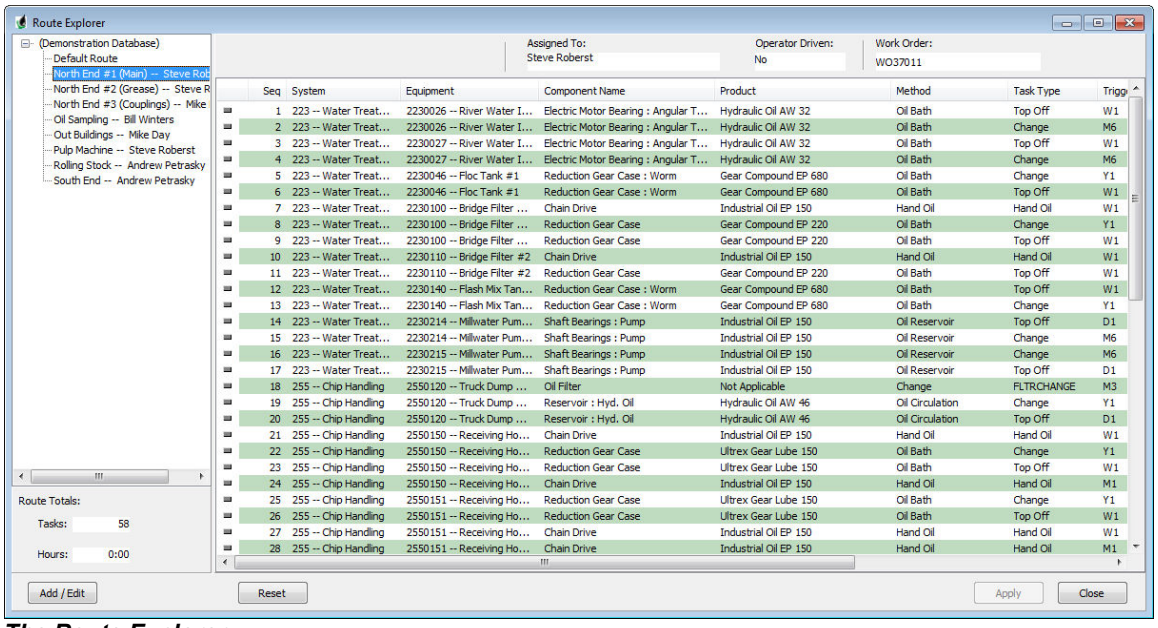
The Route Wizard is an easy way to assign a large number of tasks to a route. We will also be trying out the Route Wizard later in this section of the tutorial.

The Route Explorer

The demo data you are using in this tutorial contains a number of routes which already have tasks assigned to them. Let's take a look at these routes now.

Open the Route Explorer

1. If you have not already done so, close the Equipment Manager.
2. From the Main Panel, click on the **Route Explorer** button, or select **Routes** from the menu and **Route Explorer** from the submenu.


Route Explorer
(Demonstration Database)
Default Route
North End #1 (Main) -- Steve Rob
North End #2 (Grease) -- Steve R
North End #3 (Couplings) -- Mike
Oil Sampling -- Bill Winters
Out Buildings -- Mike Day
Pulp Machine -- Steve Roberst
Rolling Stock -- Andrew Petrasky
South End -- Andrew Petrasky
Assigned To:
Steve Roberst
Operator Driven:
No
Work Order:
WO37011
Seq
System
Equipment
Component Name
Product
Method
Task Type
Trigg
1 223 -- Water Treat... 2230026 -- River Water I... Electric Motor Bearing : Angular T... Hydraulic Oil AW 32 Oil Bath Top Off W1
2 223 -- Water Treat... 2230026 -- River Water I... Electric Motor Bearing : Angular T... Hydraulic Oil AW 32 Oil Bath Change M6
3 223 -- Water Treat... 2230027 -- River Water I... Electric Motor Bearing : Angular T... Hydraulic Oil AW 32 Oil Bath Top Off W1
4 223 -- Water Treat... 2230027 -- River Water I... Electric Motor Bearing : Angular T... Hydraulic Oil AW 32 Oil Bath Change M6
5 223 -- Water Treat... 2230046 -- Floc Tank #1 Reduction Gear Case : Worm Gear Compound EP 680 Oil Bath Change Y1
6 223 -- Water Treat... 2230046 -- Floc Tank #1 Reduction Gear Case : Worm Gear Compound EP 680 Oil Bath Top Off W1
7 223 -- Water Treat... 2230100 -- Bridge Filter ... Chain Drive Industrial Oil EP 150 Hand Oil Hand Oil W1
8 223 -- Water Treat... 2230100 -- Bridge Filter ... Reduction Gear Case Gear Compound EP 220 Oil Bath Change Y1
9 223 -- Water Treat... 2230100 -- Bridge Filter ... Reduction Gear Case Gear Compound EP 220 Oil Bath Top Off W1
10 223 -- Water Treat... 2230110 -- Bridge Filter #2 Chain Drive Industrial Oil EP 150 Hand Oil Hand Oil W1
11 223 -- Water Treat... 2230110 -- Bridge Filter #2 Reduction Gear Case Gear Compound EP 220 Oil Bath Top Off W1
12 223 -- Water Treat... 2230140 -- Flash Mix Tan... Reduction Gear Case : Worm Gear Compound EP 680 Oil Bath Top Off W1
13 223 -- Water Treat... 2230140 -- Flash Mix Tan... Reduction Gear Case : Worm Gear Compound EP 680 Oil Bath Change Y1
14 223 -- Water Treat... 2230214 -- Millwater Pum... Shaft Bearings : Pump Industrial Oil EP 150 Oil Reservoir Top Off D1
15 223 -- Water Treat... 2230214 -- Millwater Pum... Shaft Bearings : Pump Industrial Oil EP 150 Oil Reservoir Change M6
16 223 -- Water Treat... 2230215 -- Millwater Pum... Shaft Bearings : Pump Industrial Oil EP 150 Oil Reservoir Change M6
17 223 -- Water Treat... 2230215 -- Millwater Pum... Shaft Bearings : Pump Industrial Oil EP 150 Oil Reservoir Top Off D1
18 255 -- Chip Handling 2550120 -- Truck Dump ... Oil Filter Not Applicable Change FLTRCHANGE M3
19 255 -- Chip Handling 2550120 -- Truck Dump ... Reservoir : Hyd. Oil Hydraulic Oil AW 46 Oil Circulation Change Y1
20 255 -- Chip Handling 2550120 -- Truck Dump ... Reservoir : Hyd. Oil Hydraulic Oil AW 46 Oil Circulation Top Off D1
21 255 -- Chip Handling 2550150 -- Receiving Ho... Chain Drive Industrial Oil EP 150 Hand Oil Hand Oil W1
22 255 -- Chip Handling 2550150 -- Receiving Ho... Reduction Gear Case Ultrex Gear Lube 150 Oil Bath Change Y1
23 255 -- Chip Handling 2550150 -- Receiving Ho... Reduction Gear Case Ultrex Gear Lube 150 Oil Bath Top Off W1
24 255 -- Chip Handling 2550150 -- Receiving Ho... Chain Drive Industrial Oil EP 150 Hand Oil Hand Oil M1
25 255 -- Chip Handling 2550151 -- Receiving Ho... Reduction Gear Case Ultrex Gear Lube 150 Oil Bath Change Y1
26 255 -- Chip Handling 2550151 -- Receiving Ho... Reduction Gear Case Ultrex Gear Lube 150 Oil Bath Top Off W1
27 255 -- Chip Handling 2550151 -- Receiving Ho... Chain Drive Industrial Oil EP 150 Hand Oil Hand Oil W1
28 255 -- Chip Handling 2550151 -- Receiving Ho... Chain Drive Industrial Oil EP 150 Hand Oil Hand Oil M1
Route Totals:
Tasks: 58
Hours: 0:00
Add / Edit
Reset
Apply
Close

The Route Explorer

As you can see, the Route Explorer is divided into two sections. On the left is a list of all the routes in the Demonstration database, such as “North End #1 (Main)” and “Out Buildings”. The right side displays all the lubrication tasks belonging to the highlighted route.

The Default Route

The first route listed, and the one highlighted when you first enter the Route Explorer, is the **Default Route**. This is a special route containing all tasks not assigned to any other route. (No task can be unassigned.) You cannot rename or delete the Default Route. In the demo data, you can see that the Default Route contains 40 tasks. This means that there are 40 tasks not assigned to a user-defined route.

If any tasks remain on the default route, they are scheduled along with your other routes. This means you can take your time defining and building your routes with full confidence that none of your tasks will go unnoticed.

Notice the fifth route from the top, "Oil Sampling". Let's look at this route in more detail.

DO IT! ***View the Task List for a Route***

- On the left side of the Route Explorer, click on "Oil Sampling".

On the right side of the Route Explorer, the tasks belonging to this route are now displayed. Notice that only one task is assigned to that route. That is the task you added

in the previous section of the tutorial. You may remember that you selected "Oil Sampling" in the **Route Description** field when creating the task.

You can see the task you added, with the component "Reduction Gear Case", its method and product, and the task type "Sample" (you may need to scroll to the right). Note there is no due date for this task (scroll to the right to see), or any task for that matter, because due dates are not assigned until the first weekly schedule has been assigned. We will release schedules later in the tutorial.

You can look at the list of tasks for any of the routes listed here by highlighting the route name on the left side of the Route Explorer. Try it now.

The **Add/Edit** button opens the **Define Route** window, which is used to change the description of an existing route, assign a route to a different staff member or create a new route. Try that too. Notice that the **Define Route** window contains another Navigator like the one found on the Equipment Manager. In this case the Navigator lets you move around routes.

The Route Wizard

"How did all those tasks get assigned to all those routes? Some of the routes have hundreds of tasks assigned. This sounds hard and/or time consuming."

It isn't. In fact, using the Route Wizard, we are going to do just that right now. Remember those 40 tasks that were unassigned (assigned to the Default Route)? Many of those tasks are of type "Sample". Say we have a reliability engineer whose job it is to collect samples of lubricants for lab testing. To create a lube route for this engineer, we are going to use the Route Wizard to assign all "Sample" tasks to the route "Oil Sampling" (which was created earlier but only has one task assigned to it so far).

DO IT! *Assign Tasks with the Route Wizard*

1. If you have not already done so, close the Route window and the Route Explorer.
2. Select **Routes** from the menu.
3. Select **Route Wizard** from the submenu. (The Route Wizard contains a good deal of helpful text to walk you through the process of assigning tasks. You should read this text along the way to help you further understand the Route Wizard as you progress through this procedure.)
4. Read the introductory text; then click the **Next** button.
5. This screen allows you to select from which route you want to move the tasks. For this tutorial, we'll be moving tasks from the Default route. After reading the text regarding this step, click the **Next** button again to move on to the next step.

6. This screen lists all the criteria you will use to filter the tasks in the Default Route to just those that interest you (in this case, all the "Sample" tasks). There aren't any yet, so you must add one. Click on the **Add / Edit Criteria** button. (Keep in mind that the default route may have many tasks in it. We need to filter down the list so that we are only looking at the tasks which concern us at this moment.)
7. After reading the helpful text for this next step, click the text box to clear the help text.
8. Since we are going to be selecting all tasks of a particular task type, we will choose Task Type as our first field to filter. In the left panel, click on "Task Type". The right panel should now display the different task types. In the right panel, select "Sample the Product", and then click the **Mark Selected** button. The green arrow indicates that you have selected the Task Type of "Sample" as a criterion you want to filter for in the Default Route.
9. You are then allowed to select further criteria for your tasks. The only criterion we are concerned with now, however, is the task type. (We may have, for example, also filtered the list of tasks to only include those with Keyword "Conveyor", or with a Method of "Oil Bath".) Click the **OK** button to return to the last screen. You can see that the criterion "(TaskType Equals 'Sample the Product')" now appears in the list box.

"Hang on a second. What did I just do?"

You just told LUBE-IT that in the next screen you want to see a list of all the tasks in the Default Route whose Task Type is "Sample". Next you will be able to add some or all of these tasks to another route.

10. Click **Next** to continue to the next screen.
11. In the next screen, LUBE-IT presents you with a list of all tasks in the Default Route which contain the task type "Sample", just as requested. There are 14 such tasks, as indicated at the top of the window. Read the helpful text and then click the **Next** button to continue.
12. At this window you can select precisely which tasks you want to add to a route. In this case, we want to add all the tasks listed here. To do this, click on the **Select All** button. The entire list of tasks becomes highlighted. (If we only wanted some of these tasks added, we would have selected just the ones we wanted by selecting them while holding down the Shift and/or Ctrl keys.)
13. We next tell LUBE-IT which route to add these tasks to. Click on the down arrow attached to the drop-down labeled **Move selected tasks to.** Select "Oil Sampling" from the drop down list.
14. You are ready to tell LUBE-IT to assign all tasks listed here, (which is all tasks in the Default Route with a task type of "Sample"), to the route "Oil Sampling". Simply click on the **Finish** button.
15. In a second or two, the tasks are assigned. You are shown a dialog explaining what just happened. Click **OK**.

That's all there is to it. As you can see, it is relatively easy to quickly assign large numbers of tasks to a route. Let's now go back to the Route Explorer and look at the fruits of our labors.

Click on **Route Explorer** again from the Main Panel, and then select "Oil Sampling" from the left panel. As you can see, the route previously had only one task but now has 15, because you just added the 14 unassigned "Sample" tasks with the Route Wizard.

The 15 tasks are listed in the order in which they were found and added from the Route Wizard. However, when the route is actually performed, there may be a much more convenient order in which these tasks will be performed. You can reorder these tasks to suit the needs of the person performing the route. Let's try this next.

DO IT! *Reorder Tasks within a Route*

1. Select the second task in the list, (Component Name "Reservoir: Hydraulic Oil", product "Hydraulic Oil AW 46").
2. Click on the second task again, this time holding the mouse button down while you move the pointer down a few rows. You will see a highlight bar follow the mouse as you move it.
3. Release the mouse button, and the task you selected moves to the point where the button was released.
4. Practice reordering tasks with this method a few times until you get the hang of it.
5. Multiple tasks can be selected by holding down the Shift or Ctrl keys while clicking rows. To select a contiguous group of rows hold down the Shift key while clicking the first and last of the desired rows. To select multiple tasks individually, hold down the Ctrl key and click the desired rows, one after the other. Try selecting multiple rows and re-ordering using this selection method as well.
6. Click on the **Close** button.
7. Since you made changes to the route (by reordering the tasks within it), you are asked if you want to save your changes. For the purposes of this tutorial please select **No.** Normally you would select **Yes** to save these changes.
8. Notice your changes are undone and the tasks are shown in their original sequence. Close the Route Explorer by clicking on the **Close** button again.

Printing a Route Listing

"This is all good, but I like to look at hard copies. How can I print out these task lists?"

LUBE-IT comes supplied with over 50 reports you can see on-screen or print out. The route details report is just one of them. Let's print out our newly built route now.

DO IT! *Print a Route Listing*

1. If you have not already done so, close the Route Explorer by clicking on the **Close** button.
2. Click on the **Reports** button on the Main Panel.
3. From the submenu that appears, choose **Route Reports.**
4. From the submenu, choose **Route Details (Tasks)…**
5. From the Print Route Details dialog, select the Oil Sampling route.
6. Now Click the **Preview Selected Route(s)** button. This allows us to preview the report on-screen before sending it to the printer. The report generation process may take a moment.
7. If you would like, you can print directly from the report preview window without having to run the report again. Simply click on the printer button at the top of the report preview window.
8. Once you are done previewing the report, close it by Clicking on the **Close** button (which looks like an X) in the upper left-hand corner of the report preview window.
9. Finally, close the Print Route Details dialog. You are now all set to learn about building schedules.

In addition to printed route listings, the Professional and Ultimate editions of LUBE-IT also support mobile devices via the Handheld Routes Advanced Feature. No more route printouts and clipboards. Using standard Windows Mobile rugged handheld computers, this feature streamlines the management and execution of route. Simply check-out a route from LUBE-IT onto the handheld computer, complete the listed tasks, then check the route back into LUBE-IT. No more printing and no more lost pages. Best of all there's no more manual entry of completion dates -- the check-in process posts them automatically.

Execute your plan

"OK, so I have my routes all set up. Now that the data is there, what do I do with it?"

You are ready to have LUBE-IT build and release your first schedule.

The process of building a schedule is one you will run every week. Once started, LUBE-IT automatically performs the complex work examining and re-calculating each and every task and then scheduling and releasing the appropriate tasks and routes. This process also includes complete management of all backlogged work.

However, the first time you build a schedule, you have to do a few extra steps, because LUBE-IT does not know when these tasks were last performed. So, the first time you build a schedule, you can either tell LUBE-IT when all tasks were last performed, or you can simply let LUBE-IT assign these due dates automatically.

In this next section, we will build the first schedule, (letting LUBE-IT assign due dates automatically), complete some of the tasks LUBE-IT has released, and build the schedule for the subsequent week to make sure you have a good feel for the process.

Close the Print Preview window and the Print Route Details window, if you haven't already.

Your First Schedule

Build Your First Schedule

1. From the Main Panel, click on the **Weekly Work Schedule** button. The Lube Schedule Panel opens up.
2. Notice that the only button that is active is **Weekly Automatic Work Release**. None of the other buttons apply until the first weekly schedule has been created. Now, click on the **Weekly Automatic Work Release** button.
3. On multi-user editions of LUBE-IT, a User List will pop up. If you are the only one using the demo data, it will disappear momentarily. If the list shows other users, you will be unable to build the schedule until they switch to the main data or close LUBE-IT on their workstation.
4. The Build Schedule dialog opens up. Most of this dialog is just to keep you informed of the process of the schedule build. The only thing you can do here is click on **Start Now**. Do this now.
5. The **First Schedule Wizard** starts up. This only appears the first time you are building a schedule. For this tutorial, we will accept the default start date. Click **OK** to continue.
6. The **Set Date Last Done** dialog opens. Read the message and click **OK**. Here we have the opportunity to manually enter the date each and every task at

our fictional company was last performed, but for the purposes of this tutorial, we will simply let LUBE-IT assign these last done dates automatically. Click on the **Automatic** button. LUBE-IT will spread the last done dates out over several months period of time so that everything does not come due in the first week's schedule. When the message pops up to tell you it's finished, click **OK.**

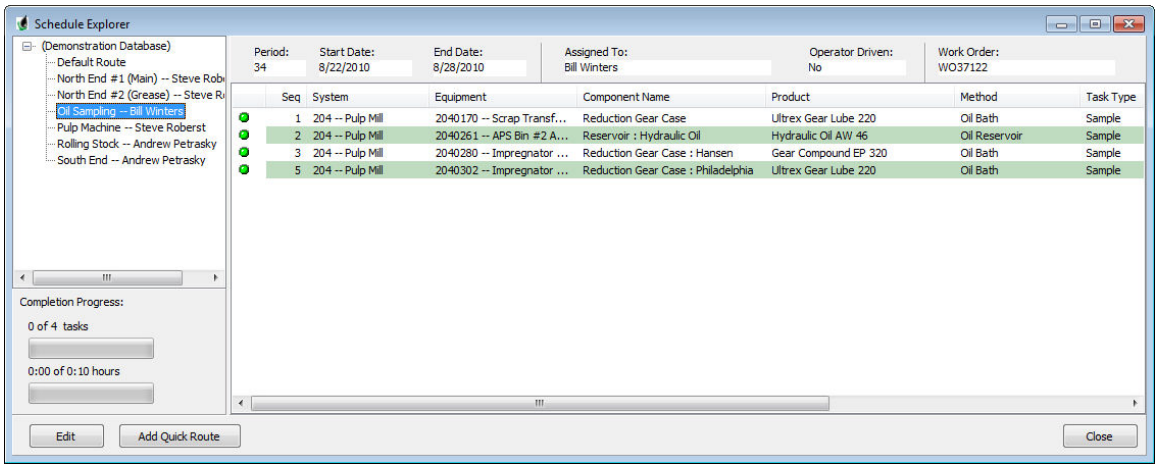
7. Click the **Done** button.
8. Click **Yes** in the confirmation message box.
9. A second confirmation box will appear informing you that there are 26 unassigned tasks. What are these? Remember back when you learned how to use the Route Wizard to assign tasks to a route? You selected all unassigned tasks of type "Sample". However, there were some other unassigned tasks that were never added to any route. LUBE-IT is reminding you of these at this point. Click on **Yes**, leaving the unassigned tasks in the Default Route.
10. LUBE-IT will now build the schedule. An arrow points to the step that is currently being performed. A green check mark indicates steps that have been completed. This process will take a few moments as LUBE-IT fills the role of maintenance planner, automatically identifying the work to be done and releasing the appropriate tasks and routes. Please wait a moment, until this is done. Click **OK** when the successfully competed message pops.
11. Your first schedule has now been built and released for the current week. That wasn't difficult, was it? The Lube Schedule Panel is displayed again, but notice now that all the buttons are active. Take a moment to read through the text next to each button to learn what you can do with a schedule.

Of course, the first thing you will want to do is look at the work LUBE-IT automatically released for your first weekly schedule.

DO IT! *View Your Schedule*

Click on the **Schedule Explorer** button on the Lube Schedule Panel. The Schedule Explorer (shown below) lists all routes that have tasks due.

Notice the Schedule Explorer is not displaying all of the routes we saw earlier using the Route Explorer. This is because some routes do not have any tasks due in the current week's schedule. Notice also that the Oil Sampling route, to which we added some 14 tasks using the Route Wizard, shows only four tasks. This is because only four of the 14 tasks were found to be due during the current week. Also notice the first task in the list is the oil sampling task with a "1 Month" trigger that you entered at the beginning of this tutorial using the Equipment Explorer.


Schedule Explorer
(Demonstration Database)
Default Route
North End #1 (Main) -- Steve Rob
North End #2 (Grease) -- Steve R
Oil Sampling -- Bill Winters
Pulp Machine -- Steve Roberst
Rolling Stock -- Andrew Petrasky
South End -- Andrew Petrasky
Period: 34
Start Date: 8/22/2010
End Date: 8/28/2010
Assigned To: Bill Winters
Operator Driven: No
Work Order: WO37122
Seq System Equipment Component Name Product Method Task Type
1 204 -- Pulp Mill 2040170 -- Scrap Transf... Reduction Gear Case Ultrex Gear Lube 220 Oil Bath Sample
2 204 -- Pulp Mill 2040261 -- APS Bin #2 A... Reservoir : Hydraulic Oil Hydraulic Oil AW 46 Oil Reservoir Sample
3 204 -- Pulp Mill 2040280 -- Impregnator ... Reduction Gear Case : Hansen Gear Compound EP 320 Oil Bath Sample
5 204 -- Pulp Mill 2040302 -- Impregnator ... Reduction Gear Case : Philadelphia Ultrex Gear Lube 220 Oil Bath Sample
Completion Progress:
0 of 4 tasks
0:00 of 0:10 hours
Edit
Add Quick Route
Close

The Schedule Explorer

Like the Route Explorer, the Schedule Explorer shows a list of routes on the left side and tasks associated with the selected route on the right side. (In the Schedule Explorer, of course, only those tasks which are due in the current week are listed, while the Route Explorer shows all tasks for the selected route, regardless of when they are due.)

Now let's look at the due tasks in our Oil Sampling route. Select it on the left side, and the four tasks that are due in the first week's schedule display on the right. Notice also that the sequence numbers in the leftmost column are not consecutive. The missing sequence numbers represent the tasks in the route that are not due in the current week's schedule.

With LUBE-IT, you can tell at a glance if a task is due or overdue by the color of the icon in the far left column of the list. A task with a gray icon is not due in the current week's schedule. Green (as shown above) means it is currently due, while red means it is past due. We will discuss past-due tasks later in the tutorial.

Click the **Close** button to exit the Schedule Explorer.

Next we will print out the scheduled tasks in the Oil Sampling route.

Printing the Scheduled Routes

A printout of the scheduled tasks for any given route is, of course, an extremely important part of LUBE-IT. The printouts can be given to lubrication personnel to guide them in performing their routes (You can also check out a scheduled route to a mobile device. For more information, see the LUBE-IT User Manual). Let's print out the scheduled tasks for our Oil Sampling route.

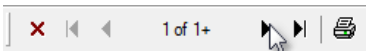
DO IT! ***Print a Scheduled Route***

1. Click on the **Print Route Worksheets** button in the Lube Schedule Panel.

2. From the Print Scheduled Routes dialog, select the Oil Sampling route by clicking on it with the mouse.
3. Click on the **Preview Selected Route(s)** button. It will take a moment for the printout to be generated.

   Similarly to when we printed the Route Details report, we are allowed to preview the printout before printing it. Take a moment to look at the Printed Route Worksheet that is now displayed in the Print Preview window.

   The first page shown includes summary information about the route near the top of the page, followed by a list of the lubricants required to perform the route for the current week.



   Now click the right-arrow icon (button) as shown above to move to the next page. You will notice this page looks similar to the report we previewed previously, but with the addition of the **Complete** column (used to check-off completed tasks).

   If you wish, you can send the report to the printer by clicking on the printer icon (button) just above the report.
4. When you are finished, close the report.

Completing Tasks and Closing Routes

"OK, so I give these schedule printouts to my oilers and mechanics. What do I do once they finish their routes?"

The only way for LUBE-IT to know when these tasks are actually performed is for you to tell it. LUBE-IT allows you to enter the completion dates for each scheduled task on a route. You can mark individual tasks as complete, as well as marking entire routes as closed.

Most importantly, LUBE-IT knows you won't have time to spend doing keyboard data entry of date, after date, for all of the tasks that have been completed. That's where the Complete Tasks feature of LUBE-IT comes into play, cutting through the hassle and getting the work done fast. Let's take a look at this now.

DO IT! *Mark Tasks as Complete*

1. Click the **Mark Completed Tasks** button on the Lube Schedule Panel.
2. In the Complete Tasks dialog, select the Oil Sampling route.

3. Click on the **Mark Tasks** button. You are presented again with a list of the tasks on the route that are currently due. In this dialog, completion dates are to be entered for each task that has been completed.
4. Click in the field labeled **Set To This Date:** in the lower right corner of the window. The date you select in this field is used to speed the entry of completion dates.
5. Let's pretend the tasks were completed today. Change the date in the field to today's date by selecting it from the drop down list. If today's date is not available then choose the date nearest to today.
6. Double-click on the second task in the list (sequence number 2). The date you entered below now appears in the leftmost column of the grid, under the heading **Completed**.
7. Double-click on the third and fourth tasks in the list (sequence numbers 3 and 5) to add the completion date to those tasks as well.
8. We are intentionally leaving the first task (sequence number 1) uncompleted in this tutorial, so that we can show you what happens when a task is not marked as completed in the current schedule.
9. Click the **Done** button to close the Mark Completed Tasks window.
10. Back at the **Complete Tasks** dialog, notice that the indicator to the left of the grid is pointing at the route we were just working on. (You can also click on the row to highlight it.) In any case, we are now going to mark the route as closed. Click on the **Close Route** button.
11. You are warned that one task on the route is not marked as completed. Click **Yes** to close the route anyway.
12. In the Route Completion window, choose a date from the Closed Date: drop-down. Then click the **OK** button to close the route.

What's the difference between closing a route and completing a task?

Completing Tasks
It is very important that tasks that have been completed are marked as completed so LUBE-IT knows when to next schedule the task. Tasks which are scheduled and not completed appear as past due in the next schedule and every subsequent schedule until such time as they are marked complete.

Closing Routes
Closing a route does not carry nearly as much weight. A route marked as closed is merely a reminder so that the person building the next schedule can see at a glance that all scheduled routes have been completed.

You are now going to complete all tasks in all the other scheduled routes. Repeat steps 1 through 7 for all the remaining routes listed before continuing on with step 8:

1. Highlight the route by clicking on it.
2. Click on the **Mark Tasks** button.
3. In the Complete Tasks dialog, choose the date from the **Set to This Date** field, and then click on the **Set All Empty Dates** button to quickly mark all tasks as complete at once.
4. Click **Done**.
5. Some of the routes have meter based tasks or tasks with consumption tracking enabled. On those routes one or more messages will pop up, asking you if you want to enter meter or consumption data. For the purposes of our tutorial, click **No**.
6. Back in the **Complete Tasks** dialog, while the indicator to the left of the grid is still pointing at the route whose tasks you just completed, click on the **Close Route** button to mark the route as closed.
7. Select a date from the Closed Date: drop-down then click **OK** to accept the default staff member (for Default Route you will need to select a staff member from the Closed By drop-down field).
8. When you close the final route, you are rewarded with a congratulatory message. Click **OK** on this message.
9. Click the **Close** button in the Complete Tasks dialog

Building Your Next Schedule

Now that you have completed nearly all the tasks that were scheduled, there's nothing left to do for this schedule period. Fast-forward to the following week, when it is time to generate the next schedule. This process should seem pretty familiar -- it is very similar to the procedure you took to generate your first schedule.

Build Your Second Schedule

1. Click on the **Weekly Automatic Work Release** button on the Lube Schedule Panel. The Build Schedule dialog appears.
2. Click the **Start Now** button.
3. If you are using a multi-user edition of LUBE-IT, and other users are currently logged on and using the demo data, then you are presented with a list of users that must be logged out before the scheduling can begin.
4. Confirm the schedule build by clicking **Yes** in the confirmation dialog.

5. You are presented with a dialog that says:

   There are currently

   26 task(s) still on the Default route
   1 Scheduled Task(s) not completed
   7 Task(s) missing completed meter reading
   12 Task(s) missing consumption data

   Continue Building Schedule?

   The one task "not completed" is the task we intentionally did not give a completion date. Select **Yes**.

6. When LUBE-IT is finished building the schedule, a message will pop up to let you know. Click **OK.**

As you can see, subsequent runs of the build schedule process are simpler than when building the very first schedule.

Next we are going to look at the Oil Sampling route again. Why? To show you there will be a different set of tasks due this time than were due for the previous week. Why? Because LUBE-IT is controlling and managing the process of scheduling and releasing tasks as appropriate. Best of all, it happens automatically, 52 weeks per year.

These next steps are identical to the process used to view the schedule the first time, but they are repeated here so you don't have to flip through the pages of this tutorial.

DO IT! *View Your Schedule*

1. Click on the **Schedule Explorer** button on the Lube Schedule Panel.
2. Select the Oil Sampling route, on the left side of the screen.

   The Task List for the Oil Sampling route appears. However, one task, "Reduction Gear Case / Ultrex Gear Lube 220", has a red icon in the leftmost column. This is our old friend from the first schedule -- the task we did not mark as completed. Since we didn't complete it in the first schedule, it now appears red, indicating it is past due. This is LUBE-IT's automatic backlog management in action. This task will continue to appear as past due in all subsequent schedules until it is marked as completed. The other listed tasks display with a green task status icon because they have only become due as of this new schedule week, and thus are not past due.

3. Click the **Close** button to close the Schedule Explorer.

Lastly, let's print this new scheduled route. Again, this process is identical to the process used to view the schedule the first time, but it's repeated here for your convenience so you don't have to flip a bunch of pages.

DO IT! *Print a Scheduled Route*

1. Click on the **Print Route Worksheets** button on the Lube Schedule Panel.
2. Select the Oil Sampling route.
4. Click on the **Preview Selected Route(s)** button. It will take a moment for the report to be generated.

   If you wish, you can send the report to the printer by clicking on the printer button just above the report.
5. When you are finished, close the report.

With a little help from LUBE-IT, you have accomplished all of the following in just a short period of time:

- Documented what to lubricate (by adding the oil sampling task)
- Planned your routes (by adding tasks to the Oil Sampling route)
- Ran the Build First Schedule process
- Reviewed the first week's schedule (using Schedule Explorer)
- Quickly recorded what tasks did and didn't get done for multiple routes (Mark Completed Tasks)
- Built a new schedule for the following week
- Reviewed the second week's schedule, including identifying backlogged (past-due) tasks

Before continuing on, be sure you switch your data source from "Demo Data" back to "Your Data". (See "Set the Data Source" on page 3.)

See the LUBE-IT User Manual for more guidance on how to use the system. Also, wherever you are in LUBE-IT you can use the F1 key on your keyboard to bring up a context specific help topic.